REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of August 25, 2004 (Office Action). This response is filed with a petition for a one-month extension of time and with an appropriate fee.

In the Office Action, the Examiner has rejected claims 1, 2, 4-7, 9 and 10 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,044,398 to Marullo, *et al.* (Marullo). Claims 3, 8, and 11 have bee rejected number under 35 U.S.C. § 103(a) as being unpatentable over Marullo.

Prior to addressing the rejections on the art, a brief review of the Applicants' invention is in order. The Applicants' invention is to be used in an e-commerce environment that includes back-end, middle-ware, and front end components. In conventional e-commerce systems, it is not possible for back-end components to monitor for delays and detect system failures from a front-end component perspective, which is the perspective of a user (see background page 3, lines 10-30). Front-end delays can result from back-end, middleware, front-end, and/or network communication delays.

One aspect of the present invention, establishes a monitor that monitors and logs e-commerce activities and latencies from each components involved in an e-commerce transaction. The monitor can be a network accessible "off the shelf" component that provides monitoring functionality to a plurality of external systems via a standardized interface. Specifically, the Applicants teach that a monitor can generate placebo transactions targeted at particular components of the e-commerce system. Responses for the placebo transactions are recorded. Latency data related to the time for receiving the response is logged. The e-commerce component having a significant latency is alerted whenever the latency indicates an unreliable response condition. Thus, the present invention includes a system that informs discrete e-commerce components when excessive latency exists so that corrective actions can be taken. Corrective actions can

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include real-time and near real time actions. The present solution (since it uses "off the shelf" components) can be used to enhance pre-existing e-commerce solutions that normally lack end-to-end performance monitoring capabilities.

Turning to the rejections on the art, Marullo teaches a system for "posting" and "getting" specific values from a set of Web pages to verify received values against previously established values. Marullo is primarily directed towards testing a series of Web pages to assure that the Web pages return expected results. That is, Marullo creates a virtual test environment, where a Website virtual browser application tests Web server applications and scripts using simulated requests. Marullo teaches that data not critical to testing is to be discarded and that previously received data can be used for conducting other tests, so that the testing performance hit is kept to a minimum (see abstract, first sentence).

Referring to claim 1, Applicants claim a tool including:

a placebo transaction dispatcher for dispatching placebo transactions to a subscribing e-commerce system;

a response collector for collecting responses to dispatched placebo transactions;

a logger for **computing transaction latency** data based upon when a placebo transaction is dispatched to said subscribing e-commerce system, and when a response is received in said collector; and,

an alerter for alerting said subscribing e-commerce system when computed **transaction latency data** indicates an **unreliable response condition** in an associated back-end transaction processing system.

Marullo fails to teach a system that computes transaction latency based upon the dispatching of a placebo transaction and the response being received from a collector. The Examiner cites column 5, lines 1-13 as teaching computing transaction latency. Applicants respectfully disagree.

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Marullo is concerned not with transactions (that have run-time latencies associated with them as remote computations are performed) , but with discrete value testing (not run-time monitoring) of Web sites and with communications errors occurring when exchanging data with the Web sites.

It is true that the summary of the Marullo invention includes a statement that "requests and other requested data can include header information, byte count, time of transaction, and other items". The Examiner has interpreted this statement of "time of transaction" to be equivalent to transaction latency data, which is not a valid interpretation within context of Marullo.

Applicants assert that as used by Marullo, the "time of transaction" refers to a packet download time, meaning the time it takes for a packet requested from a Web-server to be transferred. When either a transfer error is detected (meaning error checking bits return incorrect values or a time-out condition occurs) a request to re-submit a packet is conveyed. This interpretation makes sense for a WebRunner Subsystem 30 that interacts with the Web server 54 via an application 32, as shown by Marullo. This interpretation makes additional sense in light of the phrase "and sleep values between request may be user-specified to simulate actual user and to test session time-outs" that appears at column 5, likes 10-13.

A more complete description of this statement is defined in column 8, lines 4-26. of Marullo (time of transaction mentioned at column 8, lines 24-25). Here again, Marullo emphasizes that "Sleep values 54 may be specified between requests to simulate actual users, test session timeouts, and the like" (column 8-lines 44-47). The edit field option 36 can be set to terminate after a specified number of errors (like packet based transmission errors) to specify a number of retries on communication errors, and the like (column 8, lines 52-55).

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Further proof that the Applicants' interpretation is correct can be seen from the format of the input file (column 9) that shows a number of times to "sleep" between transactions. The illustrative input, output, and Web-runner files (columns 9-27) fail to include code that would permit transaction latency to be computed or compared.

Further still, FIGS. 4-5, which show Web Runner GUI fields, do not permit a user to specify transaction latency in any fashion. These figures do, however, permit a duration (FIG. 4) for repeating tests, an SSL timeout (in security) an error handling setting (including retires permitted on Com errors) to be established. The only other duration discussed in Marullo, is shown in FIG. 5, which shows a begin time for conducting a series of tests and a number of total hours and hours run for fifty-one test runs. Hence, FIGS. 4-5 show that Marullo is concerned with data transmission errors, but not with transaction latencies.

Further yet, flow charts 16A-19B of Marullo are clear that time is noted (152 of FIG.16A for example) to determine if an initialized TCP/IP request is processed correctly (packets transmitted). The time can be used to set error flags (206 of FIG. 16B) but is not saved as data (208). See also item 282 of FIG. 17A, item 330 of FIG. 17B, item 370 of FIG. 19A, and item 432 of FIG. 19B all of which are used to determine if a transmission "passes" (item 434 of FIG. 19B), meaning if a data transmission error occurred. A transmission error (item 440 of FIG. 19B) is often stored, but no mention of a transaction latency being stored for later use exist with the detailed descriptions for FIGS. 16A-19B or any other segment of the Marullo description.

Consequently, while the Applications respect and understand the Examiner's logic in asserting the Marullo teaches that "a logger computes transaction latency" the context of Marullo does not support this assertion as the Examiner intended. That is, one of ordinary skill n the art, would NOT (based upon Marullo without having the benefit of hindsight based upon the present application) use the teachings of Marullo for the

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proposition of computing transaction latency based upon when a transaction is dispatched and when a response is received. Such a teaching is neither present in Marullo (that teachings time-out settings for packet-based commutations can be established and transmission errors can be stored) nor inherent within Marullo. Nor does such an extension of Marullo further the purposes of Marullo, that of testing a Web site against previously established values, without further inventive actions being taken.

Besides failing to teach the logger, Marullo fails to teach the claimed alerter that "alerts the subscribing e-commerce system when computed **transaction latency data** indicates an **unreliable response condition"** The Examiner sites FIGS. 9A-9B of Marullo that shows "output of the monitoring tool". The cited figures actually show an API list that has nothing to do with transaction latency. Applicants note that the output shown in FIGS. 9A-9B DOES NOT alert a subscribing system when transaction latency data indicates an unreliable response condition occurs. As previously noted, Marullo does not even compute transaction latency. Further, nowhere does Marullo teach or suggest that an alert should occur when the (untaught) transaction latency indicates that (untaught) an unreliable response condition occurs.

As per claims 4, 6, and 9, Applicants teach a system, method, and apparatus that "compute computational latency" and "alert an e-commerce system when the latency indicates an unreliable response condition". For the same reasons claim 1, claims 4, 6, and 9 (that include the same untaught limitations) are not taught by Marullo. Since under § 102(b) each claimed limitation must be taught or inherently contained within the referenced art, the rejections based upon § 102(b) to claims 1, 4, 6, and 9 and by extension to dependant claims 2, 5, 7, and 10 should be withdrawn, which action is respectfully requested.

Turning back to the rejections, claims 3, 8, and 11 have been rejected under § 103(a) as being unpatentable over Marullo. As previously detailed, the section of

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Marullo that mentions "time of transaction" does not have the same meaning within the context of Marullo as the Examiner has asserted. That is, time of transaction in context on Marullo is used to determine if a transmission error occurred during an attempted communication. No logger that computes transaction latency data is contemplated by Marullo. Further, no alerter that alerts an e-commerce system of an unreliable response condition based upon computed transaction latency is contemplated by Marullo. Since Marullo fails to teach or suggest each of the Applicants' claimed limitations, the 103(a) rejections to claims 3, 8, and 11 should be withdrawn, which action is respectfully requested.

Moreover, claims 3, 8, and 11 claim a monitoring tool that monitors a "plurality of e-commerce systems". Marullo is silent in regard to a network element that can test multiple systems. Instead, the WebRunner system is only designed to test a single system, which is obvious from the presented code for input and output files (columns 8-21) and the flowcharts 16A-19B. Each of these is specifically designed for a single system and extensive modification, not mentioned or implied, would be necessary to convert the code into a generic system capable of handling multiple different servers.

The Examiner's assertion that multiple servers inherently lie within a communication path (extrapolated from col. 6, lines 15-18) DOES not imply that if more than one server is contemplated. Such a chain of logic would be the equivalent of presupposing that if a vacationer was traveling from Florida to West Virginia it would be obvious for that vacationer to also fly to Nevada, because planes can fly between Florida, West Virginia, and Nevada. No mention of multiple servers is made within Marullo, and the explicit teachings of Marullo are all in the context of testing a single server.

Presupposing that the shown server COULD represent multiple servers and that such a representation would be obvious (not supported), the Examiner makes a further logical leap that if multiple servers existed (not mentioned) that these multiple servers
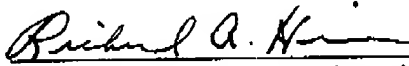
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would each be tested by Marullo (by mechanisms not shown, or mentioned in many way by Marullo.) This assertion is simply not supported by Marullo nor obvious from Marullo's teachings.

Further, the Examiner asserts that it would have been obvious (without proof) to include a list of systems to test, not shown in Marullo. Applicants request the Examiner to support this assertion in the context of the present invention, which as noted in the background was NOT taught in the context of the invention by prior art references.

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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